CHAPTER 24

BRIDGE MOUNTED SIGNS

24.1 General

- Bridge mounted sign support structures shall be designed and detailed on an individual structure basis.
- When bridge mounted signs are to be installed on grade separation structures, close liaison between Structural Design and Traffic Signal and Safety Engineering is essential. The overhead signs should be located as near to the most advantageous position for traffic operation as possible, but where structurally adequate support structure details can be provided.
- Preferable locations from a structural standpoint are usually near an abutment, bent cap, or other support. This will reduce the effect of live load vibrations. Where the sign does not extend above the top of parapet or railing, the installation of a sign on an overpass is generally not objectionable aesthetically.
- Support structures for bridge-mounted signs shall be designed with the use of hot-dipped galvanized steel tubes or hot dipped galvanized structural steel members.
- The provision of maintenance walkways for bridge-mounted signs is not required. If deemed necessary, a maintenance walkway may be provided.
- Design and details of support structures shall be such as to provide space for painting and inspection of stringers.
- Normally, signs should be placed parallel with the structure for skews up to 10 degrees. At greater angles of skew, support structures shall be detailed to position the sign at approximately right angles to the roadway. When the roadway is on a tangent, horizontal curve or there is a horizontal curve within the normal sight distance, the Traffic Signal and Safety Engineering Unit shall determine the appropriate skew angle for the traffic based on the traffic speed and horizontal curve angle.
- Support structures shall be detailed to position the sign and maintenance walkway in a horizontal position regardless of the grade of the stringers.
- Support structures shall be detailed to position the lower limit of the maintenance walkway and lighting 15 in. minimum above the underside of the fascia stringer.
- Proposed overhead bridge mounted signs shall be shown on preliminary bridge plans.
- If information concerning signs is not available at the time of preliminary bridge plan submission, revised plans shall be submitted for approval at a later date. The same procedure shall apply to bridge mounted signs proposed for existing bridges within the limits of any design contract. Design calculations indicating the influence of the additional loading stresses on the existing

structural elements shall be included. Installation of additional diaphragms from the fascia to the first and second girders may be required.

- Drilling for inserts into prestressed concrete beams will not be permitted.